Northern Great Plains Network

Inventory and Monitoring Monthly Report

June 2003

Field Inventories: The bird inventories have concluded for the field season; it's my understanding that they were once again a success with new species being added to several park lists. The reptile and amphibian inventories are ongoing and will continue throughout the summer. The mammal work (primarily bat inventories) is also currently ongoing, with several new species having been added to park lists and perhaps some new county records. Spring/early summer plant inventories have been conducted at Ft. Laramie and Ft. Union Trading Post NHS, and will be replicated throughout the summer and early fall to cover the entire growing season.

Biological Technician Position: I have received certs for the biological technician position, and have scheduled interviews. I expect to make a selection by mid-July.

Data Manager Position: Things are much less positive here. After 4-5 months of review by the personnel program in Omaha, and several statements by them that they would grade it at the GS-12 level, I heard in early July that they have changed their mind and are grading the position at the GS-11 level. My plan is to confer with the Board and decide where we go from here.

Network Technical Committee: As you all know, we have developed a Network Charter and established a Board of Directors. Next on the to-do list is forming a Network Technical Committee, comprised of a representative from each park in the Network. I have solicited designees from each superintendent and have received the following names:

Park	Designee
Agate Fossil Beds NM	Ruthann Knudson
Missouri NRR	Wayne Werkmeister
Niobrara NSR	Carmen Blausey
Theodore Roosevelt NP	Penny Knuckles

I ask that those Superintendents that have not yet designated someone please do so as soon as possible. Thank you.

Development of Vital Signs Plan: A few months back I approached all the major universities in the Northern Great Plains and solicited pre-proposals to develop a network Vital Signs monitoring plan. We received 5 very good proposals. However, the selection panel did not agree on a single best proposal. Therefore, I proposed, and the Board agreed, that we would approach the effort in stepwise manner. Specifically, I am in negotiations with the U. of Kansas to prepare the aquatic portion of the Vital Signs plan. Depending on our FY04 funding, we can go back to UK or approach another institution to develop the terrestrial portion of the plan; or if the funding is not there, we can try and do it in-house (not my preference).

Potential Vital Signs: In early June I was asked by Steve Fancy, WASO Vital Signs Coordinator, to come up with a potential list of Vital Signs (i.e., indicators) for our network that might also be monitored by other networks. The purpose of his email was to find common Vital Signs that might best be coordinated at a national level. I sent the following email in response:

> *Steve - I think this multi-network initiative is a great idea. As you know, we've just gotten into the Vital Signs program in the NGPN, but I've talked to parks enough and know them well enough that I can look in my crystal ball and give you some preliminary issues/indicators. The are (in order of liklihood of being in our final plan, in my opinion):*
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> ** Vegetation community monitoring that assesses composition (i.e., species richness, relative abundance) and form (i.e., tree basal area, grass height). I expect data collection would occur annually. There may be some weighting toward sites with exotic plant infestations and/or treatment programs, prescribed fire areas, and revegetated areas. Potential protocols include nested fixed-plot designs such as those used by the LTEM Prairie Cluster, NPS Fire Program, and the Forest Service.*
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> ** Aquatic monitoring using the 4 core variables (e.g., temperature, DO) and perhaps a few other physical attributes as well as macro-invertebrates to assess water health (mostly streams and rivers for us). I expect the physical variables to be monitored using automated systems and the macro-inverts to be monitored on an annual or biennial basis.*
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> ** Habitat (a.k.a., vegetation) monitoring and mapping using remote sensing (aerial or satellite). This would occur infrequently (perhaps every 2-10 years), and is essentially an updating of the USGS/NPS veg maps.*
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> ** Early warning monitoring of exotics, primarily plants. I'm not sure how this would occur, and it may be something that the Exotic Plant Management Team can perform.*
>
> ** Land use change outside a park using remote sensing (aerial or satellite). This could occur every 1-5 years.*
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> ** Herbivory by large mammals, i.e., browsing and grazing pressure. It could be conducted concurrently with the vegetation community monitoring listed above (and could include small exclosures).*
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> ** Bird monitoring using variable distance point counts. This may not be a great indicator, and the small size of some of our parks probably precludes meaningful monitoring at those sites; however, I can see us doing this at parks in the Black Hills where we are partnering with the Forest Service on a landscape level program, and perhaps at a few other parks.*
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> ** Air quality monitoring. I see this as likely happening, although only at a few parks. We have significant energy development proposed west of several parks, hence the indicators would be targeted toward that issue (some parks are already monitoring basic air quality attributes, so I&M would focus on other attributes).*
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> ** We've got several other issues, but they probably don't cross a lot of networks. Those issues/indicators are: prairie dog abundance and distribution, bison, elk, deer, antelope, and sheep demographics, monitoring for chronic wasting disease, cave environments (micro-climate and/or bats), and forest disease (e.g., pine beetle). Of course we are also interested in herps, fish, butterflies, soil (physical and biotic attributes), geology/erosion, fungi, etc.; however, I'm not sure those items will make the cut.*
>
> *Dan Licht*

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Steven Fancy

06/03/2003 07:38 AM MDT

Subject: multi-network monitoring issues/indicators - Please respond by 13 June

Regional and network coordinators:

To maximize the use and relevance of monitoring data for addressing park needs and to allow park involvement in partnerships, we adopted the approach whereby networks first identify their priorities for monitoring, and we then look for common ground among the networks. We are now getting close to that point where we can identify issues or indicators that many networks have identified as a priority, and coordinate our efforts better to provide more consistency and value of the resulting data sets.

At the recent meeting of IMAC, the Inventory and Monitoring Advisory Council, we agreed to poll the networks to identify some of the issues/indicators that many networks have identified as a priority, and to then form workgroups to determine how best to approach these common issues. An example is the monitoring of land use change via remote sensing, which many networks have already identified as a priority. The USGS and other agencies have existing programs and methods for monitoring land use change. The Canadian EMAN program is developing a standardized protocol for Canadian natural areas. This is not a topic that each network should work on independently. We need to have someone put together a summary of the current state of the art, and to clearly identify the need and objectives, existing programs and protocols, websites and documents where information is posted, who is working on the topic, etc. We may be able to do this with existing staff by organizing interagency workshops and conference calls and then having someone write all of it up, or we may need to use FY 04 funding to hire someone to take the lead on this.

The first step is to identify those issues/indicators that are a priority for many networks, and to develop workgroups to determine how best to approach the issue/indicator. For many of these issues, I personally would like to see a good guidance paper or website developed that summarizes the state of the art, who is doing what, existing programs and protcols, etc. In many cases, I think we should recommend existing protocols or develop a new one if nothing exists, and to work towards identifying some core indicators and measures with corresponding database structures.

*** Action Item: ** Please send an email to Steven Fancy, listing long-term monitoring issues/indicators that seem to be a priority for your network of parks, and that you think would benefit from coordination/collaboration among multiple networks.*

Other examples besides Land Use Change would be invasive plants, invasive animals, multi-species protocols for monitoring biodiversity, and remote sensing.

All 32 networks AND the prototypes should respond - there may be certain 'no-brainer' issues or indicators for some of the newly-funded networks that can be identified now.

Please respond by 13 June, or earlier.

Steve Fancy